External Evaluation Report

(Programmatic within the framework of Departmental Evaluation)

Doc. 300.3.1/1

Date: 27.4.2021.

● **Higher Education Institution:** University of Nicosia

● **Town:** Nicosia

● **School/Faculty:** Faculty of Sciences and Engineering

● **Department:** Department of Computer Science

● **Programme(s) of study - Name (Duration, ECTS, Cycle)**

Programme 1 – BSc in Computer Science

In Greek: Πληροφορική (4 χρόνια, 240 ECTS, Πτυχίο)

In English: Computer Science (4 academic years, 240 ECTS, Bachelor(BSc))

Language(s) of instruction: English

Programme 2 – MSc in Computer Science

In Greek: Πληροφορική (1.5 χρόνια, 90 ECTS, Μεταπτυχιακό) με κατευθύνσεις σε

In English: Computer Science (1.5 academic years, 90 ECTS, Master (MSc))

Language(s) of instruction: English

Programme 3 – PhD in Computer Science

In Greek: Διδακτορικό στην Πληροφορική (3 χρόνια, 180 ECTS, Διδακτορικό)

In English: Computer Science (3 academic years, 180 ECTS, Doctorate (PhD))

Language(s) of instruction: English

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A.   Introduction

This part includes basic information regarding the onsite visit.

The External Evaluation Committee (EEC) reviewed and examined the accreditation report and materials provided by the University of Nicosia pertaining to the department of Computer Science and its four-degree programs. The EEC evaluated the department and three of its programs that had not been previously evaluated and accredited: the BSc, MSc and PhD programs in Computer Science. The previously accredited distance learning-based MSc in Computer Science was not evaluated by the EEC; however, its material was examined in the evaluation. The committee had a preliminary remote meeting on 2.4.2021 to discuss the evaluation process and the two-day site visit held on 8-4.4.2021. The EEC work was facilitated by digital collaborative tools for preparing for the site visit and the writing of the evaluation reports.

The EEC was presented detailed information about the department and the degree programs. The committee met university, school and department leadership and met professors, teachers and current and past students of the programs. The EEC received answers for questions before and during the site visit that complemented the information provided in the accreditation materials. A majority of the open issues were addressed during the discussions.

Based on the examination and evaluation of the accreditation materials and the remote site visit, the EEC concludes that the required standards are met. The present assessment report describes how the standards are met and provides recommendations and suggestions for improving the department and three evaluated programs.

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B.   External Evaluation Committee (EEC)

Name	Position	University
Sasu Tarkoma (chair)	Professor, Head of Department	University of Helsinki, Finland
Nik Bessis	Professor, Head of Department	Edge Hill University, UK
Giuseppe Di Fatta	Professor, Head of Department	University of Reading, UK
Michalis Michael	Student member	Public University of Cyprus

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C.   Guidelines on content and structure of the report

- *The external evaluation report follows the structure of assessment areas.*

- *At the beginning of each assessment area there is a box presenting:*
  (a) sub-areas
  (b) standards which are relevant to the European Standards and Guidelines (ESG)
  (c) some questions that EEC may find useful.

- *The questions aim at facilitating the understanding of each assessment area and at illustrating the range of topics covered by the standards.*

- *Under each assessment area it is important to provide information regarding the compliance with the requirements of each sub-area. In particular, the following must be included:*

  ### *Findings*

  A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

  ### *Strengths*

  A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

  ### *Areas of improvement and recommendations*

  A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

- *The EEC should state the compliance for each sub-area (Non-compliant, Partially compliant, Compliant), which must be in agreement with everything stated in the report. It is pointed out that, in the case of standards that cannot be applied due to the status of the HEI and/or of the programme of study, N/A (= Not Applicable) should be noted.*

- *The EEC should state the conclusions and final remarks regarding each programme of study as a whole.*

- ***The report may also address other issues which the EEC finds relevant.***

1. **Study programme and study programme's design and development**
(ESG 1.1, 1.2, 1.7, 1.8, 1.9)

Sub-areas

    1.1. **Policy for quality assurance**
    1.2. **Design, approval, on-going monitoring and review**
    1.3. **Public information**
    1.4. **Information management**

1.1 Policy for quality assurance

Standards

- *Policy for quality assurance of the programme of study:*
  - *has a formal status and is publicly available*
  - *supports the organisation of the quality assurance system through appropriate structures, regulations and processes*
  - *supports teaching, administrative staff and students to take on their responsibilities in quality assurance*
  - *ensures academic integrity and freedom and is vigilant against academic fraud*
  - *guards against intolerance of any kind or discrimination against the students or staff*
  - *supports the involvement of external stakeholders*

1.2 **Design, approval, on-going monitoring and review**

Standards

- *The programme of study:*
  - *is designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes*
  - *is designed by involving students and other stakeholders*
  - *benefits from external expertise*
  - *reflects the four purposes of higher education of the Council of Europe (preparation for sustainable employment, personal development, preparation for life as active citizens in democratic societies, the development and maintenance, through teaching, learning and research, of a broad, advanced knowledge base)*
  - *is designed so that it enables smooth student progression*

- o *is designed so that the exams' and assignments' content corresponds to the level of the programme and the number of ECTS*
- o *defines the expected student workload in ECTS*
- o *includes well-structured placement opportunities where appropriate*
- o *is subject to a formal institutional approval process*
- o *results in a qualification that is clearly specified and communicated, and refers to the correct level of the National Qualifications Framework for Higher Education and, consequently, to the Framework for Qualifications of the European Higher Education Area*
- o *is regularly monitored in the light of the latest research in the given discipline, thus ensuring that the programme is up-to-date*
- o *is periodically reviewed so that it takes into account the changing needs of society, the students' workload, progression and completion, the effectiveness of procedures for assessment of students, student expectations, needs and satisfaction in relation to the programme*
- o *is reviewed and revised regularly involving students and other stakeholders*

1.3 Public information

Standards

- ● *Regarding the programme of study, clear, accurate, up-to date and readily accessible information is published about:*
  - o *selection criteria*
  - o *intended learning outcomes*
  - o *qualification awarded*
  - o *teaching, learning and assessment procedures*
  - o *pass rates*
  - o *learning opportunities available to the students*
  - o *graduate employment information*

1.4 Information management

Standards

- ● *Information for the effective management of the programme of study is collected, monitored and analysed:*
  - o *key performance indicators*
  - o *profile of the student population*
  - o *student progression, success and drop-out rates*
  - o *students' satisfaction with their programmes*
  - o *learning resources and student support available*
  - o *career paths of graduates*

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- *Students and staff are involved in providing and analysing information and planning follow-up activities.*

You may also consider the following questions:

- *What is the procedure for quality assurance of the programme and who is involved?*

- *Who is involved in the study programme's design and development (launching, changing, internal evaluation) and what is taken into account (strategies, the needs of society, etc.)?*

- *How/to what extent are students themselves involved in the development of the content of their studies?*

- *Please evaluate a) whether the study programme remains current and consistent with developments in society (labour market, digital technologies, etc.), and b) whether the content and objectives of the study programme are in accordance with each other?*

- *Do the content and the delivery of the programme correspond to the European Qualifications Framework (EQF)?*

- *How is coherence of the study programme ensured, i.e., logical sequence and coherence of courses? How are substantial overlaps between courses avoided? How is it ensured that the teaching staff is aware of the content and outputs of their colleagues' work within the same study programme?*

- *How does the study programme support development of the learners' general competencies (including digital literacy, foreign language skills, entrepreneurship, communication and teamwork skills)?*

- *What are the scope and objectives of the foundation courses in the study programme (where appropriate)? What are the pass rates?*

- *How long does it take a student on average to graduate? Is the graduation rate for the study programme analogous to other European programmes with similar content? What is the pass rate per course/semester?*

- ***How is it ensured that the actual student workload is in accordance with the workload expressed by ECTS?***

- *What are the opportunities for international students to participate in the study programme (courses/modules taught in a foreign language)?*

- *Is information related to the programme of study publicly available?*

- *How is the HEI evaluating the success of its graduates in the labor market? What is the feedback from graduates of the study programme on their employment and/or continuation of studies?*

- *Have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*

- *What are the reasons for dropping out (voluntary withdrawal)? What has been done to reduce the number of such students?*

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Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

General findings:

The university has an established process for introducing, monitoring and evaluating a new program of study. Programmes of study can be revised through an internal program evaluation process. The department has a clear process for strategic planning that follows an integrative annual cycle. The planning is monitored and connected with the Departmental Quality Assurance (QA) process. The strategic plan is presented to the department and the final plan is a public document placed on the department's web site. The strategic goals are divided into three pillars with initiatives and success factors. The Department Council appoints internal and external evaluation teams for the degree programs following the QA cycle.

The study programs are given mostly by permanent personnel and only a few non-permanent teachers support the programmes. All faculty members hold doctoral degrees in the modules they teach. The university has a clear process for career advancement through ranking/promotion committees. Pedagogical training and support is available for staff members.

The university and department have active student performance and wellbeing monitoring and supportive services available. Students' progress given the learning outcomes is continuously monitored with different instruments, such as exams, quizzes, tests, projects, case studies. Students receive proactive and constructive feedback on their progress. The university advocates student-centered learning. The Centre for Research and Counselling Services (KESY) provides individualized psychological support to students that face personal challenges. Academic counselling is provided to students by the department. The Student Success Centre provides tutorial services and workshops. The university is committed to providing equal opportunities in its processes and operation.

Findings for BSc
The program was established in 2008. The number of students in the BSc program has slightly increased from 96 in 2016-2017 to 108 in 2018-2019. The number of graduates per year has been between 8 (2017-2018) and 12 (2018-2019). Thematic areas are very helpful for students in building expertise. The Four thematic areas are: cybersecurity and privacy, Internet of Things, AI and ML, VR and game development. The study program has been designed with IEEE/ACM curricula in mind.

Findings for MSc
The program was established in 2015. The program has grown from 11 in 2016-2017 to 14 in 2018-2019. Majority of the students are from Cyprus. The number of M.Sc. graduates vary between 1 (2016-2017) to 7 (2019-2020). The study program has been designed with IEEE/ACM curricula in mind.

Findings for PhD
The PhD program is very small with intake between from 2 to 5 during 2016-2019. It appears that there are no PhD graduates yet.   One student is soon graduating with the PhD degree.

Clear admission requirements and flexible process provides the opportunity to tailor the research project to the applicant interests as well as to the supervisor expertise.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Strengths for BSc

The University has an established process for introducing, monitoring and evaluating a new program of study. Programmes of study can be revised through an internal program evaluation process.

The Department has a clear process for strategic planning that follows an integrative annual cycle. The planning is monitored and connected with the Departmental Quality Assurance process. The strategic plan is presented to the Department and the final plan is a public document placed on the department's web site. The strategic goals are divided into three pillars with initiatives and success factors.

The Department advocates connecting research activities and findings with education. Students are reported to be active in research projects resulting in articles co-authored with students.

Strengths for MSc

Same as above.

Strengths for PhD

The Department encourages and supports research based education.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Areas of improvement and recommendations for BSc

The Department should analyze the degree programs for identifying the root causes of the slow graduation process. Many of the students are working at the same time that explains why the completion of degrees can take more time than anticipated. The Department is encouraged to analyse course and degree completion in more detail and mitigate any identified bottlenecks.

While the low number of female faculty members and students is typical in Computer Science, this should be addressed through faculty and student recruitment. It is highly recommended to increase the number of female professors.

The challenge of the high teaching load should be addressed through new recruitments, assessing teaching task assignments to the faculty members, increasing researcher and PhD student participation in teaching.

While it is commendable that each student receives academic counselling from the Head of Department and the Program Coordinator there are questions pertaining to scalability and time management especially for the B.Sc. program with hundreds of students. We recommend revisiting the notion of assigning an academic mentor for each student. This would be important as the program scales up.

We recommend developing skills oriented courses to complement the core Computer Science topics.

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Areas of improvement and recommendations for MSc

Same as above.

Areas of improvement and recommendations for PhD

The PhD program is small and it is highly recommended to increase the number of PhD students for building momentum. The PhD program can be supported by encouraging faculty members to acquire externally funded research projects and activities. It is also encouraged to connect PhD students with educational activities, for example as Teaching Assistants on courses.

We recommend developing a visiting professor program for supporting renewal in the research environment. This instrument could support both incoming and outgoing academic visitors who would then participate in research and teaching activities.

A formal internal progress monitoring and assessment process involving academic members not in the supervisory team can be considered to add more robustness to the programme.

Please select what is appropriate for each of the following sub-areas:

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		BSc	MSc	PhD
1.1	Policy for quality assurance	C	C	C
1.2	Design, approval, on-going monitoring and review	C	C	C
1.3	Public information	C	C	C
1.4	Information management	C	C	C

2. Student – centred learning, teaching and assessment *(ESG 1.3)*

> ### Sub-areas
> **2.1 Process of teaching and learning and student-centred teaching methodology**
> **2.2 Practical training**
> **2.3 Student assessment**

2.1 Process of teaching and learning and student-centred teaching methodology

Standards

- *The process of teaching and learning supports students' individual and social development.*
- *The process of teaching and learning is flexible, considers different modes of delivery, where appropriate, uses a variety of pedagogical methods and facilitates the achievement of planned learning outcomes.*
- *Students are encouraged to take an active role in creating the learning process.*
- *The implementation of student-centered learning and teaching encourages a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher.*
- *Teaching methods, tools and material used in teaching are modern, effective, support the use of modern educational technologies and are regularly updated.*
- *Mutual respect within the learner-teacher relationship is promoted.*
- *The implementation of student-centred learning and teaching respects and attends to the diversity of students and their needs, enabling flexible learning paths.*
- *Appropriate procedures for dealing with students' complaints regarding the process of teaching and learning are set.*

2.2 Practical training

Standards

- *Practical and theoretical studies are interconnected.*
- *The organisation and the content of practical training, if applicable, support achievement of planned learning outcomes and meet the needs of the stakeholders.*

2.3 Student assessment

Standards

- *Assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures.*
- *Assessment is appropriate, transparent, objective and supports the development of the learner.*
- *The criteria for and method of assessment, as well as criteria for marking, are published in advance.*
- *Assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary, is linked to advice on the learning process.*
- *Assessment, where possible, is carried out by more than one examiner.*
- *A formal procedure for student appeals is in place.*
- *Assessors are familiar with existing testing and examination methods and receive support in developing their own skills in this field.*
- *The regulations for assessment take into account mitigating circumstances.*

You may also consider the following questions:

- *How is it monitored that the teaching staff base their teaching and assessment methods on objectives and intended learning outcomes? Provide samples of examination papers (if available).*
- *How are students' different abilities, learning needs and learning opportunities taken into consideration when conducting educational activities?*
- *How is the development of students' general competencies (including digital skills) supported in educational activities?*
- *How is it ensured that innovative teaching methods, learning environments and learning aids that support learning are diverse and used in educational activities?*
- *Is the teaching staff using new technology in order to make the teaching process more effective?*
- *How is it ensured that theory and practice are interconnected in teaching and learning?*
- *How is practical training organised (finding practical training positions, guidelines for practical training, supervision, reporting, feedback, etc.)? What role does practical training have in achieving the objectives of the study programme? What is student feedback on the content and arrangement of practical training?*
- ***Are students actively involved in research? How is student involvement in research set up?***
- *How is supervision of student research papers (seminar papers, projects, theses, etc.) organised?*
- ***Do students' assessments correspond to the European Qualifications Framework (EQF)?***
- *How are the assessment methods chosen and to what extent do students get supportive feedback on their academic progress during their studies?*
- *How is the objectivity and relevance of student assessment ensured (assessment of the degree of achievement of the intended learning outcomes)?*

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Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Findings for the three programs: BSc, MSc,PhD

The EEC considered the submitted documentation and met with current staff and students, as well as recent graduates. There is strong evidence of the high quality of the teaching and learning good practices, and excellent student experience. The teaching, learning and assessment practices are well thought, organised and implemented.

Coursework assignments are consistently marked and feedback and solutions are provided. Students have the opportunity to provide anonymous evaluation and feedback on each course.

Students are offered continuous support from academic advisors and counsellors. Students are encouraged to seek advice from the advisor, programme coordinator and from the academic staff teaching the courses.

The department uses Moodle to support blended learning and the delivery of courses.

Student and graduate feedback is generally very positive. Academic staff are always available to support the students for specific matters related to the courses and for any matter in general. There is evidence of the general high quality of T&L activities and of a friendly environment that facilitates a positive student engagement.

Overall there is evidence of an excellent job prospect for graduates. The programmes clearly meet the most important requirements to ensure excellent employability of the graduates.

The low number of student intakes has helped the department deliver their courses with a small number of students in appropriately sized lab rooms.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Strengths for BSc
The number of students per course is capped to ensure high quality T&L and student experience.

There are good examples of research and industry engagement in T&L. Research and industry seminars given by guest speakers have been offered at MSc level and were open to all students.

Strengths for MSc
The same as above.

Strengths for PhD

The department supports co-production of knowledge and the relationship between research and teaching.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Areas of improvement and recommendations for the three programs: BSc, MSc, PhD

Student feedback needs to be analysed more systematically and a general response should be offered back to the students in terms of a general summary and a plan of actions to make improvements.

The department offers a non mandatory orientation week and following the meeting with the students the EEC has found that not all students were aware of the formal complaints and appeal procedure reflecting the need for improved communication with concerned students. Better communication is required to ensure students are aware of the policies, i,e., complaints and appeals process.

Some courses can be improved in terms of supporting the development of practical skills associated to conceptual and theoretical content: a continuous effort to balance between theory and practical skills in some courses is advisable. The distribution between elective vs major courses can also be reconsidered periodically.

Please select what is appropriate for each of the following sub-areas:

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		BSc	MSc	PhD
2.1	Process of teaching and learning and student-centred teaching methodology	C	C	C
2.2	Practical training	C	C	C
2.3	Student assessment	C	C	C

3. **Teaching staff** *(ESG 1.5)*

Sub-areas

    3.1.Teaching staff recruitment and development
    3.2.Teaching staff number and status
    3.3.Synergies of teaching and research

3.1.Teaching staff recruitment and development

Standards

- *Institutions ensure the competence of their teaching staff.*
- *Fair, transparent and clear processes for the recruitment and development of the teaching staff are set up.*
- *Teaching staff qualifications are adequate to achieve the objectives and planned learning outcomes of the study programme, and to ensure quality and sustainability of the teaching and learning.*
- *The teaching staff is regularly engaged in professional and teaching-skills training and development.*
- *Promotion of the teaching staff takes into account the quality of their teaching, their research activity, the development of their teaching skills and their mobility.*
- *Innovation in teaching methods and the use of new technologies is encouraged.*
- *Conditions of employment that recognise the importance of teaching are followed.*
- *Recognised visiting teaching staff participates in teaching the study programme.*

3.2.Teaching staff number and status

Standards

- *The number of the teaching staff is adequate to support the programme of study.*
- *The teaching staff status (rank, full/part time) is appropriate to offer a quality programme of study.*
- *Visiting staff number does not exceed the number of the permanent staff.*

3.3.Synergies of teaching and research

Standards

- *The teaching staff collaborate in the fields of teaching and research within the HEI and with partners outside (practitioners in their fields, employers, and staff members at other HEIs in Cyprus or abroad).*
- *Scholarly activity to strengthen the link between education and research is encouraged.*
- *The teaching staff publications are within the discipline.*

- *Teaching staff studies and publications are closely related to the programme's courses.*
- *The allocation of teaching hours compared to the time for research activity is appropriate.*

You may also consider the following questions:

- *How are the members of the teaching staff supported with regard to the development of their teaching skills? How is feedback given to members of the teaching staff regarding their teaching results and teaching skills?*
- *How is the teaching performance assessed? How does their teaching performance affect their remuneration, evaluation and/or selection?*
- *Is teaching connected with research?*
- *Does the HEI involve visiting teaching staff from other HEIs in Cyprus and abroad?*
- *What is the number, workload, qualifications and status of the teaching staff (rank, full/part timers)?*
- *Is student evaluation conducted on the teaching staff? If yes, have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*

Findings
A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The EEC considered the submitted documentation and met with staff to understand the clarity and fairness of the approach on how the University recruits, appoints, inducts and supports academic staff in delivering high quality teaching, research and student experience.

The recruitment and selection procedure has been described in a robust manner and it is fair and clear. At the first 2 years of their appointment, staff have to undergo a robust probation process, while all staff during the employment period have to undergo an annual performance evaluation review. New academic staff are assigned a mentor. There are clear criteria for different teaching ranks (professor, associate professor etc) and clear guidelines for progression and promotion.

The University has some central procedures to support staff induction and staff development, for example, certificate in teaching. However, these are not provided in a systematic way. For example, there is no training activity menu such as GDPR, diversity, fire and safety etc. The EEC felt that for an international university of this scale there should be a menu for staff development.

There are currently 16 tenured academic staff in which 6 of them are full professors. There are also 3 non-tenured adjunct staff.

The CVs of existing staff demonstrate very good evidence of appointed academic staff having prior and relevant teaching and research experience in higher education institutions and are members of professional organizations. Research expertise and publication records are relevant and consistent to the programmes of study.

There is a student survey which gathers student feedback and it is used as part of the annual programmes of study review and self-assessment. There are teaching and observation peer review procedures.

As a whole the teaching staff is highly commended by the students.

Findings for BSc
The student population for the BSc programmes of study is 138. With this population the 8.6 (Student-Staff Ratio) SSR is excellent and therefore the staffing base seems more than appropriate to deliver the programmes of study. Teaching workloads will only be increased due to the large number of optional subject specific courses that have to be delivered over the 4-year time period. The current position of the department is not to offer all optional courses at BSc level which defeats the purpose of offering them if not available; this also impacts the student satisfaction.

Findings for MSc
The student population for the MSc programmes of study is 36 resulting in an outstanding SSR.

Findings for PhD
There are 8 PhD students having great support from their supervisory teams. Students commented highly of the networking opportunities.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Strengths for BSc
Staff expertise and relevance to the programme of study.

Strengths for MSc
Staff expertise and relevance to the programme of study.

Strengths for PhD
Staff expertise and relevance to the programme of study.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Areas of improvement and recommendations for BSc
The EEC recommends the development of systematic central support with regards to staff induction and staff development.

Unavailability of all optional courses. The EEC recommends the alignment of course demand from the students, course planning and course selection.

Areas of improvement and recommendations for MSc
The EEC recommends the development of systematic central support with regards to staff induction and staff development.

Areas of improvement and recommendations for PhD
The EEC recommends the development of systematic central support with regards to staff induction and staff development.

Please select what is appropriate for each of the following sub-areas:

Sub-area		*Non-compliant/* *Partially Compliant/Compliant*		
		BSc	MSc	PhD
3.1	Teaching staff recruitment and development	PC	PC	PC
3.2	Teaching staff number and status	C	C	C
3.3	Synergies of teaching and research	C	C	C

ΔΙΠΑΕ CYQAA **ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ**
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4. Student admission, progression, recognition and certification *(ESG 1.4)*

> **Sub-areas**
>
> **4.1. Student admission, processes and criteria**
> **4.2. Student progression**
> **4.3. Student recognition**
> **4.4. Student certification**

4.1 Student admission, processes and criteria

Standards

- *Pre-defined and published regulations regarding student admission are in place.*
- *Access policies, admission processes and criteria are implemented consistently and in a transparent manner.*

4.2 Student progression

Standards

- *Pre-defined and published regulations regarding student progression are in place.*
- *Processes and tools to collect, monitor and act on information on student progression, are in place.*

4.3 Student recognition

Standards

- *Pre-defined and published regulations regarding student recognition are in place.*
- *Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components for ensuring the students' progress in their studies, while promoting mobility.*
- *Appropriate recognition procedures are in place that rely on:*
  - *institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention*
  - *cooperation with other institutions, quality assurance agencies and the national ENIC/NARIC centre with a view to ensuring coherent recognition across the country*

4.4 Student certification

Standards

- *Pre-defined and published regulations regarding student certification are in place.*
- *Students receive certification explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed.*

You may also consider the following questions:

- *Are the admission requirements for the study programme appropriate? How is the students' prior preparation/education assessed (including the level of international students, for example)?*
- *How is the procedure of recognition for prior learning and work experience ensured, including recognition of study results acquired at foreign higher education institutions?*
- *Is the certification of the HEI accompanied by a diploma supplement, which is in line with European and international standards?*

Findings
A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The EEC felt that the admissions procedure contains robust and credible plans for the recruitment of students. Entry requirements can range to suit different educational backgrounds and access qualifications for home, EU and international applicants. All applicants must undergo an interview and a placement test. The medium of instruction is English and a proficiency certificate is the minimum language requirement. The programs of study are fully recognized at national and international levels through their inclusion to NARIC.

There are clear plans supporting student progression and achievement of student outcomes. The grading and degree classification systems are comparable to other national and international institutions.

Academic advisors and tutors are available to support and monitor student progression and achievement. Monitor Reviewing Indicators about progression at both course and programme levels are analyzed and monitored through programme coordinators review meetings on an annual basis. However, there is no structured and annually produced monitoring report.

The university' academic regulations are available and discussed during the non mandatory orientation week.

Findings for BSc
Same as above.

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Findings for MSc
Same as above.

Findings for PhD
Same as above.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Strengths for BSc
Range of entry requirements to support various educational backgrounds.

Strengths for MSc
Range of entry requirements to support various educational backgrounds.

Strengths for PhD
Range of entry requirements to support various educational backgrounds.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Areas of improvement and recommendations for BSc
Lack of a risk assessment plan for low student intake. The EEC recommends the development of an action plan leading to an increasing number of students over the next two-three years.

Lack of a structured and annually produced monitoring report pertaining to student progression, attainment and other key performance indicators relating to the studies.

Areas of improvement and recommendations for MSc
Lack of a risk assessment plan for low student intake. The EEC recommends the development of an action plan leading to an increasing number of students over the next two-three years.

Lack of a structured and annually produced monitoring report pertaining to student progression, attainment and other key performance indicators relating to the studies.

Areas of improvement and recommendations for PhD
Lack of a risk assessment plan for low student intake. The EEC recommends the development of an action plan leading to an increasing number of students over the next two-three years.

Please select what is appropriate for each of the following sub-areas:

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		BSc	MSc	PhD
4.1	Student admission, processes and criteria	C	C	C
4.2	Student progression	C	C	C
4.3	Student recognition	C	C	C
4.4	Student certification	C	C	C

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5. Learning resources and student support *(ESG 1.6)*

Sub-areas

5.1. **Teaching and Learning resources**
5.2. **Physical resources**
5.3. **Human support resources**
5.4. **Student support**

5.1 Teaching and Learning resources

Standards

- *Adequate and readily accessible teaching and learning resources (teaching and learning environments, materials, aids and equipment) are provided to students and support the achievement of objectives in the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose.*
- *Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing the learning resources.*

5.2 Physical resources

Standards

- *Physical resources, i.e. premises, libraries, study facilities, IT infrastructure, are adequate to support the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose and students are informed about the services available to them.*

5.3 Human support resources

Standards

- *Human support resources, i.e. tutors/mentors, counsellors, other advisers, qualified administrative staff, are adequate to support the study programme.*

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- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose and students are informed about the services available to them.*

5.4 Student support

Standards

- *Student support is provided covering the needs of a diverse student population, such as mature, part-time, employed and international students and students with special needs.*
- *Students are informed about the services available to them.*
- *Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing student support.*
- *Students' mobility within and across higher education systems is encouraged and supported.*

You may also consider the following questions:

- *Evaluate the supply of teaching materials and equipment (including teaching labs, expendable materials, etc.), the condition of classrooms, adequacy of financial resources to conduct the study programme and achieve its objectives. What needs to be supplemented/ improved?*
- *What is the feedback from the teaching staff on the availability of teaching materials, classrooms, etc.?*
- *Are the resources in accordance with actual (changing) needs and contemporary requirements? How is the effectiveness of using resources ensured?*
- *What are the resource-related trends and future risks (risks arising from changing numbers of students, obsolescence of teaching equipment, etc.)? How are these trends taken into account and how are the risks mitigated?*
- *Evaluate student feedback on support services. Based on student feedback, which support services (including information flow, counselling) need further development?*
- *How is student learning within the standard period of study supported (student counselling, flexibility of the study programme, etc.)?*
- *How students' special needs are considered (different capabilities, different levels of academic preparation, special needs due to physical disabilities, etc.)?*
- *How is student mobility being supported?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Findings for the three programs: BSc, MSc, PhD

The university advocates student-centered learning. The Centre for Research and Counselling Services (KESY) provides individualized psychological support to students that face personal challenges. Academic counselling is provided to students by the Department. The Student Success Centre provides tutorial services and workshops. The Student Affairs Department helps students with accommodation, arrival and career matters. The Career & Employability Office provides students and alumni relevant career information. The university organizes the annual Cyprus Career Expo. The Industry Liaison Office provides internship opportunities with the industry. A number of seminars and workshops are organized for students and alumni.

The Computer Centre of the university has laboratories with modern computers that are updated every two years and a design lab with 3D printer and traditional printers. The university has its own grid infrastructure. The virtual learning environment consists of MOODLE and LAMS.

Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Strengths for BSc

The programs have excellent support from the university IT services, for example cloud services. The library facilities meet the expectations and the library services include access to IEEE and ACM digital resources. Off campus access is available through OpenAthens and a proxy server.

Student to teacher ratio is excellent. Students enjoy a very good presence by the teachers.

Strengths for MSc

Same as above.

Strengths for PhD

Same as above.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Areas of improvement and recommendations for BSc

The computer laboratories appear adequate for the teaching purposes; however, the extent of availability of the infrastructure to Computer Science courses was ambiguous. The department is recommended to clarify which of the laboratories are open to taught students. The mobile computing and the Internet of Things infrastructure could be more comprehensive for state of the art research activities.

Areas of improvement and recommendations for MSc

Same as above.

Areas of improvement and recommendations for PhD

Same as above.

Please select what is appropriate for each of the following sub-areas:

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		BSc	MSc	PhD
5.1	Teaching and Learning resources	C	C	C
5.2	Physical resources	C	C	C
5.3	Human support resources	C	C	C
5.4	Student support	C	C	C

6. Additional for doctoral programmes *(ALL ESG)*

> ### Sub-areas
> **6.1. Selection criteria and requirements**
> **6.2. Proposal and dissertation**
> **6.3. Supervision and committees**

6.1 Selection criteria and requirements

Standards

- *Specific criteria that the potential students need to meet for admission in the programme, as well as how the selection procedures are made, are defined.*
- *The following requirements of the doctoral degree programme are analysed and published:*
  - *the stages of completion*
  - *the minimum and maximum time of completing the programme*
  - *the examinations*
  - *the procedures for supporting and accepting the student's proposal*
  - *the criteria for obtaining the Ph.D. degree*

6.2 Proposal and dissertation

Standards

- *Specific and clear guidelines for the writing of the proposal and the dissertation are set regarding:*
  - *the chapters that are contained*
  - *the system used for the presentation of each chapter, sub-chapters and bibliography*
  - *the minimum word limit*
  - *the binding, the cover page and the prologue pages, including the pages supporting the authenticity, originality and importance of the dissertation, as well as the reference to the committee for the final evaluation*
- *There is a plagiarism check system. Information is provided on the detection of plagiarism and the consequences in case of such misconduct.*
- *The process of submitting the dissertation to the university library is set.*

6.3 Supervision and committees

Standards

- *The composition, the procedure and the criteria for the formation of the advisory committee (to whom the doctoral student submits the research proposal) are determined.*
- *The composition, the procedure and the criteria for the formation of the examining committee (to whom the doctoral student defends his/her dissertation), are determined.*
- *The duties of the supervisor-chairperson and the other members of the advisory committee towards the student are determined and include:*
  - *regular meetings*
  - *reports per semester and feedback from supervisors*
  - *support for writing research papers*
  - *participation in conferences*
- *The number of doctoral students that each chairperson supervises at the same time are determined.*

You may also consider the following questions:

- *How is the scientific quality of the PhD thesis ensured?*
- *Is there a link between the doctoral programmes of study and the society? What is the value of the obtained degree outside academia and in the labour market?*
- *Can you please provide us with some dissertation samples?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The structure and management of the PhD programme is in line with international standards. The admission requirements and the admission process is robust and clearly specified. An appropriate supervisor is allocated to the applicants based on academic interests and availability.

PhD students may be required to attend some postgraduate courses that the Department Postgraduate Programmes Committee may advise. There is no strict requirement.

The PhD student engages with the supervisor to define and to write a research proposal. The defence of the research proposal is carried out with the supervisory team, who will provide guidance for the execution of the project. The defence of the Thesis is carried out with an Examinations Committee including internal and external members.

Currently there are 8 PhD students plus one expected to start the programme soon.

The first student to complete the programme has recently passed the final viva defence and is about to receive the PhD title award.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

There is good evidence of engagement with industry within the programme, which is a particularly important aspect. Clear admission requirements and flexible process provides the opportunity to tailor the research project to the applicant interests as well as to the supervisor expertise.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

A formal internal progress monitoring and assessment process involving academic members not in the supervisory team can be considered to add more robustness to the programme.

Please select what is appropriate for each of the following sub-areas:

Sub-areas		Non-compliant/ Partially Compliant/Compliant
6.1	Selection criteria and requirements	Compliant
6.2	Proposal and dissertation	Compliant
6.3	Supervision and committees	Compliant

D.   Conclusions and final remarks

Please provide constructive conclusions and final remarks, which may form the basis upon which improvements of the quality of each programme of study under review may be achieved, with emphasis on the correspondence with the EQF.

The External Evaluation Committee (EEC) reviewed and examined the accreditation report and materials provided by the University of Nicosia pertaining to the Department of Computer Science and its four-degree programs. The EEC evaluated the department and three of its programs that had not been previously evaluated and accredited: the BSc, MSc and PhD programs in Computer Science. The previously accredited distance learning-based MSc in Computer Science was not evaluated by the EEC; however, its material was examined in the evaluation. The committee had a two-day remote site visit on 8-4.4.2021. The EEC was presented detailed information about the department and the degree programs. The committee met university, school and department leadership and met professors, teachers and current and past students of the programs. The EEC received answers for questions before and during the site visit that complemented the information provided in the accreditation materials. A majority of the open issues were addressed during the discussions.

The department should analyze the degree programs for identifying the root causes of the slow graduation process. Many of the students are working at the same time that explains why the completion of degrees can take more time than anticipated. The department is encouraged to analyse course and degree completion in more detail and mitigate any identified bottlenecks.

Some courses can be improved in terms of supporting the development of practical skills associated to conceptual and theoretical content: a continuous effort to balance between theory and practical skills in some courses is advisable. The distribution between elective vs major courses can also be reconsidered periodically.

Some of the optional courses may not be available to students at a given semester or year. The EEC recommends the alignment of course demand from the students, course planning and course selection.

The computer laboratories appear adequate for the teaching purposes; however, the extent of availability of the infrastructure to Computer Science courses was ambiguous. The department is recommended to clarify which of the laboratories are open to taught students. The mobile computing and the Internet of Things infrastructure could be more comprehensive for state of the art research activities.

A formal internal progress monitoring and assessment process involving academic members not in the supervisory team can be considered to add more robustness to the programme. Lack of a structured and annually produced monitoring report pertaining to student progression, attainment and other key performance indicators relating to the studies.

Based on the examination and evaluation of the accreditation materials and the remote site visit, the EEC concludes that the required standards are met.

E. Signatures of the EEC

Name	Signature
Sasu Tarkoma (chair)	
Nik Bessis	
Giuseppe Di Fatta	
Michalis Michael	

Date: 27.4.2021